IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

FINESSE WIRELESS, LLC Plaintiff, v. AT&T MOBILITY, LLC, Defendant.	§ § § § § § § §	CASE NO. 2:21-CV-00316-JRG (LEAD CASE) CASE NO. 2:21-CV-00317-JRG (MEMBER CASE)
FINESSE WIRELESS, LLC, Plaintiff, v. CELLCO PARTNERSHIP d/b/a VERIZON WIRELESS, Defendant, NOKIA OF AMERICA CORPORATION, ERICSSON INC., Intervenors.	§ § § § § § § § § § § § §	**JURY TRIAL DEMANDED**

PLAINTIFF FINESSE WIRELESS, LLC'S
OPENING CLAIM CONSTRUCTION BRIEF

TABLE OF CONTENTS

TABLE OF AUTHORITIES

Page(s)

Cases

Statutes

I. INTRODUCTION

Plaintiff Finesse Wireless, LLC files this opening claim construction brief to address the terms of U.S. Patent Nos. 7,346,134 and 9,548,775 (each the "'134 patent" and "'775 patent," together the "Patents") that Defendants AT&T Mobility, LLC and Verizon Wireless (together the "Named Defendants") and Intervenors Nokia of America Corp. and Ericsson Inc. (together the "Intervenors") have identified for construction. Excepting only the few means-plus-function phrases in claim 2 of the '134 patent described below, none of the terms require construction by this Court.

II. RELEVANT BACKGROUND

The '134 patent, entitled "Radio Receiver," is directed to various apparatuses such as radio receivers and methods to "demodulate multiple modulations and bandwidth signals and provide interference compensation." Ex. 1 ('134 patent) at Abstract & 1:23–28. Finesse asserts claims 1–3, 20–32, and 34–38 against Defendants. As its claims demonstrate, the '134 patent generally relates to technology that removes interference in cellular wireless communications systems affected by interference from passive and active intermodulation. *Id.* at 1:20–67. At a high level, the patent discloses "oversampling, at a desired frequency, a passband of received signals to create a bitstream. The received signals include signals of interest and interference generating signals," where the latter is "capable of generating intermodulation products inband of the signals of interest." *Id.* at 2:1–9. The patent also discloses isolating signals of interest in the bitstream using decimating filters; isolating source signals that generate intermodulation products inband of the signal of interest using decimating filters; computing an estimate of the intermodulation products from the source signals that generate the intermodulation products; and canceling out the inband intermodulation products using the estimate of the intermodulation products. *Id.* at 2:9–18. These patented inventions are crucial to removing or eliminating "interference due to the tails of the

harmonic images that extend into the baseband signal"—something prior art filtering techniques could not do and did not do without damaging the signal of interest. *Id.* at 1:55–67.

The '775 patent, entitled "Mitigation of Transmitter Passive and Active Intermodulation Products in Real and Continuous Time in the Transmitter And Co-Located Receiver," is directed to apparatuses and "a transmitter channel interference mitigation processing method for cancellation of intermodulation products." Ex. 2 ('775 patent) at Abstract. Finesse asserts claims 1–4, 9–19, 21–24, and 29–39 against Defendants. As its claims demonstrate, the '775 patent discloses generating continuous and real-time intermodulation cancellation signals in the baseband digital signal set of a receiver in the vicinity of a transmitter based on a transmitter signal set; and combining digital intermodulation cancellation signals with a digital baseband transmitter signal set such that the digital cancellation signals are cancelled by and so cancel the intermodulation products generated by the non-linear components in the analog transmitter hardware. *Id.*, Abstract, 16:54–17:6. Furthermore, the patent discloses one embodiment where the intermodulation cancellation signals are generated using a process based on a power series description of a non-linear process generating the intermodulation products, such as by convolving the transmitter signal set with a compression curve function. *Id.* at Abstract, 15:37–63, 18:4–8. Like the '134 patent, by attenuating interference signals via cancellation techniques driven by the source signals, the '775 patent is a technological improvement over prior art methods because it does not involve interference avoidance, costly manual or mechanical equipment fixes, frequency planning, or filtering which tends to damage the signal of interest. *Id.* at 3:20–25; '134 patent, 1:55–2:18.

As explained below, including based on the expertise of Finesse's claim construction expert, Dr. Jonathan Wells, Finesse maintains that the asserted patent claims use plain language to

clearly disclose the claimed inventions, and the means-plus-function claims find substantial support throughout the specifications.

III. LEGAL STANDARDS

The purpose of claim construction is to "determin[e] the meaning and scope of the patent claims asserted to be infringed." *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996). Claim construction is a matter of law. *Id.* at 979. Intrinsic evidence—the patent claim language, specification, and prosecution history, considered in this order of importance—is the primary source of guidance as to the meaning of the claim terms. *See Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582–83 (Fed. Cir. 1996).

Courts may also turn to extrinsic evidence including dictionaries, treatises, and expert testimony. *Id.* at 1583. "Dictionaries and technical treatises . . . hold a 'special place' and may sometimes be considered along with intrinsic evidence when determining the ordinary meaning of claim terms." *Bell Atl. Network Servs. Inc. v. Covad Commc'ns Grp. Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). Expert testimony "may be used only to help the court come to the proper understanding of the claims [and] may not be used to vary or contradict the claim language." *Vitronics*, 90 F.3d at 1584. In any event, "the claim construction inquiry . . . begins and ends in all cases with the actual words of the claim." *Renishaw PLC v. Marposs Società per Azioni*, 158 F.3d 1243, 1248 (Fed. Cir. 1998).

"Generally this court gives claim terms their ordinary and customary meanings, according to the customary understanding of an artisan of ordinary skill at the time of the invention." *Finisar Corp. v. DirecTV Grp., Inc.*, 523 F.3d 1323, 1328 (Fed. Cir. 2008). "The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005) (en banc) (internal quotation marks omitted). The Federal Circuit has repeatedly held

"that courts cannot alter what the patentee has chosen to claim as his invention, that limitations appearing in the specification will not be read into claims, and that interpreting what is *meant* by a word *in* a claim is not to be confused with adding an extraneous limitation appearing in the specification, which is improper." *Intervet Am., Inc. v. Kee-Vet Labs., Inc.*, 887 F.2d 1050, 1053 (Fed. Cir. 1989) (internal quotation marks omitted).

In construing means-plus-function terms, courts follow a two-step process. First, the court "identif[ies] the claimed function." *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1351 (Fed. Cir. 2015) (en banc). "Then, the court must determine what structure, if any, disclosed in the specification corresponds to the claimed function." *Id.* "Structure disclosed in the specification qualifies as 'corresponding structure' if the intrinsic evidence clearly links or associates that structure to the function recited in the claim." *Id.* at 1352.

A claim is not indefinite if the claim, "viewed in light of the specification and prosecution history, inform[s] those skilled in the art about the scope of the invention with reasonable certainty." *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910 (2014). "[A]bsolute precision is unattainable," and therefore "the certainty which the law requires in patents is not greater than is reasonable, having regard to their subject-matter." *Id.* (internal quotation marks omitted). "The facts giving rise to a finding of indefiniteness must be proved by clear and convincing evidence. That is, overcoming the presumption of patent validity 'demands clear and convincing evidence that a skilled artisan could not discern the boundaries of the claim.'" *Erfindergemeinschaft UroPep GbR v. Eli Lilly & Co.*, 240 F. Supp. 3d 605, 624 (E.D. Tex. 2017) (citations omitted).

IV. ARGUMENT

A. Agreed Terms

The parties' agreed constructions are listed in the table below.

Claim Term/Phrase (Patent)	Agreed Construction
"signal(s) of interest" ('134: 1, 2, 3, 20)	with respect to the receiver, a signal that the receiver is trying to receive and send, in digital form, to/from the baseband processor
"source signal(s)" ('134: 1, 2, 3, 20)	signals that mix in the nonlinearities to produce intermodulation products that fall in-band of the signal of interest
"intermodulation product(s)" ('134: 1, 2, 3, 20)	the signal that results from mixing of jammer signals in the non-linearities of the system that result in generating interfering signals in the pass band of the signal of interest wherein jammer signal is any signal in the receive pass band that is not the intended signal of interest
"decimating filter(s)" ('134: 1, 2, 3)	a filter associated with the Sigma Delta Modulator or any digital down sampling filter
"transmitter signals" ('775: 1, 2, 3, 4, 9, 10, 16, 17, 19, 21, 22, 23, 24, 29, 30, 36, 37, 39)	signals output by a transmitter
"means for isolating signals of interest in the bit stream using one or more decimating filters" ('134: 2)	112, para. 6: Function: isolating signals of interest in the bit stream Structure: one or more decimating filters
"means for isolating source signals that generate one or more intermodulation products inband of the signal of interest using one or more decimating filters" ('134: 2)	112, para. 6: Function: isolating source signals that generate one or more intermodulation products inband of the signal of interest Structure: one or more decimating filters

B. Terms in Dispute

1. "means for oversampling, at a desired frequency, a passband of received signals to create a bit stream, wherein the received signals include signals of interest and interference generating signals" ('134 patent, claim 2)

Finesse's Construction	Defendants' Construction
Pursuant to 35 U.S.C. § 112 ¶6: **Function**: over-sampling, at a desired frequency, a passband of received signals to create a bit stream, wherein the received signals include signals of interest and interference generating signals **Structure**: sampling rate multiplier comprising one or more Sigma Delta Modulators or Flash A/D converters in a radio receiver, as well as equivalents thereof	112, para. 6: **Function**: over-sampling, at a desired frequency, a passband of received signals to create a bit stream wherein the received signals include signals of interest and interference generating signals. **Structure**: one or more sigma delta modulators or flash ADCs that generate low resolution high bit rate digital samples of the passband.

The parties agree on the function of this means-plus function term. Similarly, the parties agree on a portion of the structure. Both parties submit that the structure should include "one or more Sigma Delta Modulators or Flash A/D converters." The core dispute is whether the structure should be limited to Sigma Delta Modulators or Flash A/D converters "that generate low resolution high bit rate digital samples of the passband." Finesse submits that it should not.

As an initial matter, the proposed limitation "that generate low resolution high bit rate digital samples of the passband" is plainly functional language and not structural. Defendants inexplicably propose it as a functional limitation on the structure. This functional language has no place in the structural component of a means-plus-function construction. *Rain Computing, Inc. v. Samsung Elecs. Am., Inc.*, 989 F.3d 1002, 1007 (Fed. Cir. 2021) ("[W]e must consider the [means-plus-function] term's construction, which occurs in two steps. The first step in construing a means-plus function claim is to identify the claimed function. ***After identifying the function***, we then determine what structure, if any, disclosed in the specification corresponds to the claimed

function.") (citations omitted) (emphasis added).

Further, there is nothing in the claim language or the specification that limits this structure as Defendants propose. While it is true that the specification describes Sigma Delta Modulators or Flash A/D converters that generate low resolution high bit rate digital samples of the passband, the specification is unequivocal that they are not so limited. The Detailed Description explains that "[t]his invention uses an over sampling technique known as a Sigma Delta Modulator, but uses it in a non-conventional way to achieve several benefits to be covered herein. (Note that ***in one embodiment a Flash A/D converter with sufficient resolution*** can be used, but will require a large dynamic range to accommodate very large jamming signals in the receive pass band and very high sampling speed to prevent aliasing)." '134 patent at 3:10–15 (emphasis added). Similarly, the specification provides: "[t]he flash A/D cell 320 uses a flash A/D module to sample the receive band to a ***medium resolution*** (approximately 4 bits) at a high enough rate to avoid aliasing." *Id.* at 15:23–25; *see also id.* at 25:45–52 ("In one embodiment, flash A/D converter 424 is a low to medium resolution A/D converter (around 4 bits) that samples the entire band"); 25:45–52 ("In another embodiment, Sigma Delta Modulator 907 and decimating filters 908 and 909 may be replaced by a high speed flash A/D converter followed by programmable or fixed digital filters in filters 908 and 909. Either way, the entire receive band is digitized and ***high resolution*** samples of the 802.11b and the Bluetooth signals result (probably 4 to 6 bits). ***Other embodiments may have greater resolution***").[1] Defendants' attempt to limit the structure to the low-resolution embodiment is therefore contrary to black letter law. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) ("although the specification often describes very specific embodiments of

[1] In addition, the specification contains scores of other references indicating that the claims should not be limited to "low resolution." *See* Ex. 3 (Wells Decl.) at ¶¶87-92.

the invention, we have repeatedly warned against confining the claims to those embodiments.") (citations omitted).

Finally, Defendants' construction omits "equivalents thereof." This language is required by the statute which explains a means-plus-function "claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof." 35 U.S.C. § 112 ¶6. Defendants' attempt to exclude equivalents thereof should be rejected.

Accordingly, the structure for this claim term is not limited to the low-resolution embodiment. The Court should reject Defendants' construction.

2. "means for computing an estimate of each of the one or more intermodulation products from the source signals that generate the one or more intermodulation products" ('134 patent, claim 2)

Finesse's Construction	Defendants' Construction
Pursuant to 35 U.S.C. § 112 ¶6: **Function**: computing an estimate of each of the one or more intermodulation products from the source signals that generate the one or more intermodulation products **Structure**: a radio receiver with an intermodulation compensator, as well as equivalents thereof	112, para. 6: **Function**: computing an estimate of each of the one or more intermodulation products from the source signals that generate the one or more intermodulation products **Structure**: general purpose processor; algorithm: estimating the frequency of each of the one or more intermodulation products by multiplying source signals that generate the one or more intermodulation products with each other in the time domain, and estimating the amplitude of each of the one or more intermodulation products using the IIP3 or IIP2 estimate of the system

The parties agree to the function of this means-plus-function term but dispute whether the structure is simply a general purpose processor. It is not. The '134 patent points directly to a structure intended to perform the above-described functions: a radio receiver with an intermodulation compensator. '134 patent, 7:17–18. Figure 2A of the patent, for example, discloses an intermodulation compensator 204 that works with processor 220 to "compute[] the expected in-band interfering signals based on the [input intercept points 2 and 3], and other

attributes of the system such as phase and amplitude offsets." *Id*. at 9:34–37; *see also id.* at 10:9–23 ("Processor 220A and its associated components 224A and 228A phase adjust, amplitude adjust, and perform signal inversion on the computed transmitter feed through intermodulation products. Processor 220B and its associated components 224B and 228B phase adjust, amplitude adjust, and perform signal inversion on the computed intermodulation product from the source signals. The phase and amplitude adjusted inverted signals from processors 220A and 220B are added to signal 206 via adder 226. The resulting signal is output to correlators 228A and 228B as well as I-Q de-interleaver and baseband processor interface cell."). Notably, here the patentee distinguishes the intermodulation compensator 204, which "performs the above-described functions" from "processor 220." Additionally, this phase and amplitude adjustment may also be carried out in the decimating filters, which are part of the intermodulation compensator. *Id.* at Fig. 11 and 17:41–51 ("In one embodiment, the phase shifting function is performed using a FIR filter with only a few taps. By properly selecting the weighting of values A, B, and C in the interpolation process, any arbitrary phase shift can be achieved. The amplitude may be adjust[ed] by simple scaling.").

Defendants seek to invoke the case law that typically demands the inclusion of an algorithm when the structure for a means-plus-function claim is a general purpose processor. *See, e.g.*, *WMS Gaming, Inc. v. International Game Tech.*, 184 F.3d 1339 (Fed. Cir. 1999). So they propose to improperly limit the structure here to a general purpose processor, running a single algorithm they claim is disclosed in column 17 of the patent. Importantly, however, the "algorithm requirement" does not apply when the proper structure for a means-plus-function claim is "circuitry" and not a "general purpose processor." *Qualcomm Inc. v. Intel Corp*., 6 F.4th 1256, 1267 (Fed. Cir. 2021)

("The reasoning for the algorithm requirement of *WMS Gaming* does not apply to functions implemented through circuitry.").

Defendants are wrong to impose an algorithm requirement on this means-plus-function phrase because the relevant structure is not a general purpose processor. Indeed, as *Qualcomm* makes clear, the '134 patent discloses that its inventions can be implemented in many structural forms, comprising, for example, discrete hardware components, ASICS, electrical, optical, acoustical and other forms of propagated signals, and more. This disclosure in the '134 patent confirms that the structure of those inventions is "circuitry" and not a "general purpose computer." *Compare* '134 patent at 23:8–22 ("This system may be applicable to any communications system including those with close in-interfering signals and in-band intermodulation products. The technique described above may be implemented as a set of instructions to be executed and stored in the memory of a computer system (e.g., set top box, video recorders, etc.). Alternatively, the logic to perform the methods as discussed above, could be implemented by additional computer and/or machine readable media, such as discrete hardware components as large-scale integrated circuits (LSI's), application-specific integrated circuits (ASIC's), firmware such as electrically erasable programmable read-only memory (EEPROM's); and electrical, optical, acoustical and other forms of propagated signals (e.g., carrier waves, infrared signals, digital signals, etc.); etc.") (emphasis added), *with Qualcomm*, 6 F.4th at 1267 ("The intrinsic record reveals that power tracker 582 is circuitry. See '675 patent at 8:42 ('allow for a more efficient power tracking circuitry'), 13:32–35 ('The power tracker . . . may be implemented on an IC [integrated circuit], an analog IC, an RFIC, a mixed-signal IC, an ASIC, a printed circuit board (PCB), an electronic device, etc.').") (emphasis added). Further, the disclosure in the '134 patent that the structure can

be implemented as "discrete hardware components" including "forms of propagated signals" makes clear that the relevant structure is not limited to a "general purpose computer."

To be sure, there are some embodiments disclosed in the specification that discuss "processors." *See, e.g.*, '134 patent, 9:66–10:23. But that does not mean these "processors" must necessarily be "general purpose processors." "General purpose processors" (or "general purpose computers") are special types of devices that "can be programmed to perform very different tasks in very different ways . . . ." *Aristocrat Techs. v. International Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008). Indeed, the term "general purpose processor" is meant to distinguish such processors from "specific purpose processors." An ASIC is a classic example of such a "specific purpose processor," and the Federal Circuit in *Qualcomm* confirmed that ASICs are "circuits" and not "general purpose processors." 6 F.4th at 1267.

Thus, for example, if this were a case about spreadsheet software running on a personal computer, then a "means for tabulating" or the like might well dictate a structure of a general purpose processor running a tabulation algorithm. But this case involves "radio receivers and nonlinear transmitters." '134 patent, 1:23–24. The "processors" at issue need not be limited to "general purpose processors," but rather they can be single-purpose processors that perform a specific function. *See id.* at 10:12–19 ("Processor 220A and its associated components 224A and 228A phase adjust, amplitude adjust, and perform signal inversion on the computed transmitter feed through intermodulation products. Processor 220B and its associated components 224B and 228B phase adjust, amplitude adjust, and perform signal inversion on the computed intermodulation product from the source signals."). In describing these processors, the patent does not use language one might see with respect to general purpose processors, such as "configured to," "programmed to," and the like.

Accordingly, the structure for this claim term should be considered circuitry consistent with *Qualcomm*. Only Finesse's proposed construction properly identifies that circuitry, so this Court should reject Defendants' proposal.

Further, even if the Court were to adopt Defendants' proposal concerning structure, the Court should not adopt Defendant's proposed algorithm. Defendant's algorithm is flawed for several reasons. *First*, the Defendants seek to limit the function "computing an estimate of each of the one or more intermodulation products from the source signals" to "multiplying source signals." This is wrong because it impermissibly alters the claim language by conflating an estimate from the source signals with multiplying the signals themselves. Similarly, nothing in the specification limits computing to merely multiplying. Indeed, any algorithm should include mathematical equivalents of multiplication, such as addition.

Second, the language "generate the one or more intermodulation products" in Defendants' proposal should not be included because it is not necessarily known which source signals are generating the intermodulation products without first computing the estimate. Indeed, the specification contemplates multiple forms of narrowing down the intermodulation products—either winnowing down source signals before calculating, or filtering the calculated estimates to ones that fall in band. *See* '134 patent, 15:27–35; 15:50–57; 16:5–14. Defendants' proposed construction would limit when this "narrowing down" could occur to only one embodiment.

Finally, Defendants' proposal of "estimating the amplitude of each of the one or more intermodulation products using the IIP3 or IIP2 estimate of the system" is unduly limiting. The specification is clear that this algorithm should not be limited to "the IIP3 or IIP2 estimate of the system." For example, the specification explains "[a] processor 220 computes the expected in-band interfering signals based on the IIP2, IIP3, and other attributes of the system such as phase

and amplitude offsets." *Id.* at 9:34–37 (emphasis added); *see also id.* at 12:1–7 ("In one embodiment, transmitter feed thru module 327 receives a signal from search cell 330 that identifies the location of a close-in blocking signal and then transmitter feed thru module 327 isolates the blocking signal and uses it along with the transmitter feed thru to generate an estimate of the interference generated by the transmitter feed thru amplitude modulating the blocking signal"); *id* at 22:43–50 ("In processing block 630, an intermodulation compensator computes the expected in-band interference signals based on the IIP2, IIP3 and other non-linear attributes of the system. In another embodiment, with respect to processing block 620, two filters are used to band pass the source signals and these are then used in processing block 630 to compute the intermodulation products estimate.").

The Court should reject Defendants' proposed construction.

3. "means for canceling out one or more inband intermodulation products using the estimate of the intermodulation products" ('134 patent, claim 2)

Finesse's Construction	Defendants' Construction
Pursuant to 35 U.S.C. § 112 ¶6: **Function**: canceling out one or more inband intermodulation products using the estimate of the intermodulation products **Structure**: a radio receiver with an intermodulation compensator, as well as equivalents thereof	112, para. 6: **Function**: canceling out one or more inband intermodulation products using the estimate of the intermodulation products **Structure**: an inverter and an adder

The parties agree to the function of this means-plus-function term but dispute whether the structure is limited to an inverter and an adder or rather should be a radio receiver with an intermodulation compensator, as well as equivalents thereof. The proper construction should not unduly limit the corresponding structure to an inverter and an adder, as proposed by Defendants.

The '134 patent specification makes clear that an "**[i]ntermodulation compensator 204** estimates the non-linearities and intermodulation products prior to final digital conversion at

baseband and output to the digital baseband processor(s) ***and uses these estimates to cancel out interference*** due to the nonlinearities in the signal of interest (SOI)." '134 patent, 8:10–15 (emphasis added); *see also* 9:13–65 (describing component parts). In addition, the '134 patent provides other examples of "means for canceling" throughout the specification, for example, the "intermodulation cancellation cell 340" and its components. *Id.* at 11:49–62 ("In intermodulation cancellation cell 340, a transmitter feed thru intermodulation products generation module 341 uses the filtered transmitter feed thru and associated interference source signal half way between the transmitter and the receiver signal to compute the intermodulation interference produced by the transmitter feed thru and other mixing signal(s). A Source Signal Intermod (SIM) generation (SIM GEN) module 342 uses the filtered source signals from decimating filters 328 to compute the estimate of the intermodulation interfering signals. A cancellation summing cell 343 inverts and combines both of these signals with the filtered signal-of-interest to produce a signal-of-interest with the intermodulation interference canceled."); *see also id.* at Fig. 3. The patent describes a further embodiment in which "cancellation summing cell 340 includes a control loop that adjusts the phase and amplitude of the canceling signals to reduce, and potentially minimize, interference[.]" *Id*. at 11:63–66. Further descriptions and embodiments are readily available throughout the patent specification and figures. *See, e.g.*, *id.* at 7:17–22, 7:23–29, 8:8–10, 8:16–18, 9:13–15, 9:34–37, 9:38–44, 9:60–61, 9:63–65, 10:12–23, 10:32–38, 11:46–49, 11:58–63, 11:63–67, 14:62–65, 15:50–57, 16:42–47, 16:53–55, 17:8–10, 17:65–67, 18:8–10, 18:16–18, 18:30–32, 22:56–60, 25:8–11, 26:4–5, 26:8–11, 26:27–32, 27:14–17; Figs. 2A, 2B, 4, 5, 6, 7, 9, 13; *see also* Ex. 3 (Wells Decl.) at ¶¶114–120.

Defendants propose to limit the structure to "adder 226" and "cancellation summing cell 328." This construction is incomplete when viewed in accordance with the specification and

therefore too restrictive. For example, as described above with respect to "intermodulation compensator 204" and "intermodulation cancellation cell 340," the '134 patent provides that the cancellation process includes at least some, and possibly all, of the following components which are capable of generating the ICSs, inverting the ICSs or phase shifting, adding the cancellation signal, and adjusting the phase and amplitude of the ICSs to minimize the residual intermodulation interference: an intermodulation compensator (*see, e.g.*, compensator 204 incorporating FIR filter 222, cancellation signal 224 (or 224A and 224B), and adder 226; intermodulation cancellation cell 340 and its modules such as cancellation summing cell 343; intermodulation compensator 403 and its modules including cancellation unit 428 and units 426 and 432; units 640 and 645; phase and amplitude correction unit 910; phase and amplitude adjustment block 1121 and summation block 1122) in a radio receiver, as well as equivalents thereof. *See* Wells Decl., 27, 42–43.

Finally, Defendants' construction omits "equivalents thereof," in contravention of the statutory requirement of 35 U.S.C. § 112 ¶6. Defendants' attempt to exclude equivalents thereof should be rejected, and the Court should find that the structure for this claim should not be limited merely to an adder and an inverter.

4. "means for performing phase and amplitude adjustment on estimations of the intermodulation product interfering signals in a closed loop manner, wherein the means for performing phase and amplitude adjustment of the estimations comprises means for performing subsample phase shifts to make a phase adjustment on the estimations of the intermodulation product interfering signals" ('134 patent, claim 2)

Finesse's Construction	Defendants' Construction
Pursuant to 35 U.S.C. § 112 ¶6: **Function**: performing phase and amplitude adjustment on estimations of the intermodulation product interfering signals in a closed loop manner, wherein the means for performing phase and amplitude adjustment of the estimations comprises means for performing subsample phase shifts to make a phase adjustment on the estimations of the intermodulation product	112, para. 6: **Function**: performing phase and amplitude adjustment on estimations of the intermodulation product interfering signals in a closed loop manner

Finesse's Construction	Defendants' Construction
interfering signals **Structure**: a radio receiver with an intermodulation compensator, and equivalents thereof	 **Structure**: general purpose processor; algorithm as disclosed in col. 17, lines 4-51

There is a small dispute between the parties as to the function at issue in this means-plus-function term. Both parties cite the first phrase of this claim term as part of the function, but Defendants cut that function off at the "wherein" clause. Finesse urges that the "wherein" clause provides important qualifications and explanations, and so should be included in the recitation of this term's function.

As to the structure, the parties' dispute parallels the dispute discussed above with respect to the "means for computing an estimate of each of the one or more intermodulation products from the source signals that generate the one or more intermodulation products" term. The Court should reject Defendants' proposal for the same reasons discussed for that term.

5. "a sampling unit to sample, at a desired frequency, a passband of received signals to create a bit stream, wherein the received signals include signals of interest and interference generating signals" ('134 patent, claim 3)

Finesse's Construction	Defendants' Construction
Plain and ordinary meaning. To the extent the Court believes this term is governed by 35 U.S.C. § 112 ¶6: **Function**: sample, at a desired frequency, a passband of received signals to create a bit stream, wherein the received signals include signals of interest and interference generating signals **Structure**: sampling rate multiplier comprising one or more Sigma Delta Modulators or Flash A/D converters in a radio receiver, as well as equivalents thereof	112, para. 6: **Function**: sample, at a desired frequency, a passband of received signals to create a bit stream **Structure**: one or more sigma delta modulators or flash ADCs that generate low resolution high bit rate digital samples of the passband

As is the case here, "[w]hen a claim term lacks the word 'means,'" there is a presumption that § 112 ¶ 6 does not apply. *Williamson*, 792 F.3d at 1348. A party seeking to overcome that presumption must supply "evidentiary support for [its] position." *Zeroclick, LLC v. Apple Inc.*, 891 F.3d 1003, 1007–08 (Fed. Cir. 2018). Specifically, it must "demonstrate[] that the words of the claim are *not* understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure." *SecurityProfiling, LLC v. Trend Micro Am., Inc.*, No. 3:17-CV-1484-N, 2018 WL 4585279, at *3 (N.D. Tex. Sept. 25, 2018) (emphasis in original). Indeed, "if a limitation recites a term with a known structural meaning, or recites either a known or generic term with a sufficient description of its operation, the presumption against means-plus-function claiming remains intact." *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1300 (Fed. Cir. 2014) (emphases added) (overruled on other grounds). If "the intrinsic record" or "extrinsic evidence" show that the words at issue refer to particular structure, the presumption stands, and § 112 ¶ 6 does not apply. *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1024 (Fed. Cir. 2006). Defendants fail to carry their burden to rebut this presumption.

The patentee knew how to use means-plus-function language and did use it for claim 2. Claim 3, however, omits this language indicating that the term should not be construed as a means-plus-function term. *See Whitewater W. Indus., Ltd. v. Splashtacular, Inc.*, No. CV 12-1423 PSG (DTBx), 2013 WL 12125752 (C.D. Cal. Feb. 12, 2013) (concluding that "a means-plus-function limitation can apply to some claims and not others" based on the precise language used in each claim); *Nystrom v. TREX Co.*, 424 F.3d 1136, 1143 (Fed. Cir. 2005) ("When different words or phrases are used . . . a difference in meaning is presumed.").

This claim term discloses "a sampling unit," whose function Defendants would say is "sample, at a desired frequency, a passband of received signals to create a bit stream." But even if

the first part of this claim might be considered functional, the claim term does not stop there. It goes on to explain how this is to be accomplished: "wherein the received signals include signals of interest and interference generating signals." Defendants attempt to take the structure that is already in the claim and import additional structure into it. This is not proper, because the claim language already recites enough structure. *See, e.g.*, *Linear Tech. Corp. v. Impala Linear Corp*., 379 F.3d 1311, 1320 (Fed. Cir. 2004) ("Thus, when the structure connoting term 'circuit' is coupled with a description of the circuit's operation, sufficient structural meaning generally will be conveyed to persons of ordinary skill in the art, and § 112 ¶ 6 presumptively will not apply.").

In the event the Court finds this to be a means-plus-function term, the dispute regarding this term is identical to the term "means for oversampling, at a desired frequency, a passband of received signals to create a bit stream, wherein the received signals include signals of interest and interference generating signals," discussed above. The Court should reject Defendants' attempt to import the "that generate low resolution high bit rate digital samples of the passband" limitation, as well as their exclusion of equivalents, for the same reasons discussed in connection with that term.

6. "a cancellation unit to cancel out isolated interference generated signals using estimations of the intermodulation products generated by the isolated interfering signals, wherein the estimations of the isolated interfering signals comprise estimations of intermodulation products falling inband of the signals of interest" ('134 patent, claim 3)

Finesse's Construction	Defendants' Construction
Plain and ordinary meaning. To the extent the Court believes this term is governed by 35 U.S.C. § 112 ¶6: **Function**: canceling out isolated interference generated signals using estimations of the intermodulation products generated by the isolated interfering signals, wherein the estimations of the isolated interfering signals comprise	112, para. 6: **Function**: cancel out isolated interference generated signals using estimations of the intermodulation products generated by the isolated interfering signals

Finesse's Construction	Defendants' Construction
estimations of intermodulation products falling inband of the signals of interest **Structure**: a radio receiver with an intermodulation compensator, as well as equivalents thereof	**Structure**: an inverter and an adder

For the same reasons discussed above with respect to the "a sampling unit" term, this phrase was not written in means-plus-function form, and Defendants fail to meet the burden of rebutting the presumption that it is not subject to § 112 ¶6.

Should the Court wish to subject this phrase to means-plus-function treatment, the dispute here is identical to the dispute over corresponding structure for the "means for cancelling" term, discussed above. Like for that term, here too the Court should decline to limit the corresponding structure for the function of canceling out isolated interference generated signals using estimations of the intermodulation products generated by the isolated interfering signals to an inverter and an adder, and instead find that a radio receiver with an intermodulation compensator, as well as equivalents thereof, are the appropriate corresponding structure.

7. "a phase and amplitude adjuster to adjust the phase and amplitude of estimations of the isolated interfering signals in a closed loop manner, wherein the phase and amplitude adjuster performs phase and amplitude adjustment of the estimations by making sub-sample phase shifts to make a phase adjustment on the estimations of the isolated interfering signals" ('134 patent, claim 3)

Finesse's Construction	Defendants' Construction
Plain and ordinary meaning. To the extent the Court believes this term is governed by 35 U.S.C. § 112 ¶6: **Function**: performing phase and amplitude adjustment on estimations of the intermodulation product interfering signals in a closed loop manner, wherein the means for performing phase and amplitude adjustment of the estimations comprises means for performing subsample phase shifts to	112, para. 6: **Function**: adjust the phase and amplitude of estimations of the isolated interfering signals in a closed loop manner, wherein the phase and amplitude adjuster performs phase and amplitude adjustment of the estimations by making sub-sample phase shifts to make a phase adjustment on the estimations of the isolated interfering signals

Finesse's Construction	Defendants' Construction
make a phase adjustment on the estimations of the intermodulation product interfering signals **Structure**: a radio receiver with an intermodulation compensator, and equivalents thereof	**Structure**: general purpose processor; algorithm as disclosed in col. 17, lines 4-51

The unique[2] dispute with respect to this claim term is whether it should be construed as a means-plus-function claim. Despite the fact that this claim term does not use "means for" claiming language—and despite the fact that the patentees knew how to use such claiming language and did use it for claim 2—Defendants nevertheless insist on applying § 112 ¶6 to this term. This Court should decline that invitation.

When a claim "does not contain the words 'means for,' there is a rebuttable presumption that section 112, paragraph 6, does not apply to that limitation." *Samsung Elecs. Am., Inc. v. Prisua Eng'g Corp.*, 948 F.3d 1342, 1353 (Fed. Cir. 2020). Defendants bear the burden of rebutting this presumption and establishing by a preponderance of the evidence that the claims should be governed by § 112 ¶6. *Advanced Ground Info. Sys., Inc. v. Life360, Inc*., 830 F.3d 1341, 1347 (Fed. Cir. 2016). "The standard is whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure." *Id*. In this case, the presumption applies with full force because the asserted claims do not use "means." Defendants cannot rebut the presumption that § 112 ¶6 does not apply.

Typically, a defendant trying to impose § 112 ¶6 on a claim term that does not employ means-for claiming language will argue that the claim term contains some sort of word for performing a function, with no structure identified to accomplish that structure. But that is not the

[2] To the extent this Court agrees with Defendants and does treat this term as a means-plus-function term, then the parties' positions are identical to their positions with respect to the "means for performing phase and amplitude adjustment" term discussed above, to which Finesse refers the Court.

case here. This claim term recites "a phase and amplitude adjuster," whose function Defendants would say is "to adjust the phase and amplitude of estimations of the isolated interfering signals in a closed loop manner." But even if the first part of this claim might be considered functional (and Finesse does not agree), the claim term does not stop there. Rather, it goes on to explain how to accomplish adjusting the phase and amplitude of estimations of the isolated interfering signals in a closed loop manner: "wherein the phase and amplitude adjuster performs phase and amplitude adjustment of the estimations by making sub-sample phase shifts to make a phase adjustment on the estimations of the isolated interfering signals." In essence, Defendants wish to take the structure that is already part of the claim language and import additional structure (an algorithm they construct from "one embodiment" at '134 patent, 17:4–5) into it. This is not proper, because the claim language already contains sufficient structure. *See, e.g.*, *Linear Tech.*, 379 F.3d at 1320 ("Thus, when the structure connoting term 'circuit' is coupled with a description of the circuit's operation, sufficient structural meaning generally will be conveyed to persons of ordinary skill in the art, and § 112 ¶ 6 presumptively will not apply.").

8. "oversampling . . . at a low resolution" ('134 patent, claim 20)

Finesse's Construction	Defendants' Construction
Plain and ordinary meaning. Alternatively, to the extent that the Court believes this term requires construction: "oversampling . . . at a resolution that avoids aliasing"	low resolution means "less than or equal to 4 bits"

This is a term that a skilled artisan would readily understand and which is not accorded any special meaning by the claims, specification, or prosecution history. As such, it should be accorded its plain and ordinary meaning.

As set forth in the declaration of Dr. Wells, a skilled artisan would understand that this term refers to low resolution sampling, wherein the sampling is less than "high" sampling that is

the effective number of bits required to fully acquire (obtain) and resolve (decode or extract information from) a signal of interest. Wells Decl., at ¶82. The '134 patent uses this term in the same manner, insofar as it discloses that "[t]his low resolution sampling is done at a sufficiently high enough rate to preclude aliasing (i.e. at a rate above the Nyquist rate for the entire receive band and transmit band if required)." *Id*. at 4:44–47. Defendants appear to demand a numerical limit to the size of "low" resolution sampling, but the patent contemplates that "low" is a relative term that is defined based upon the usage at issue. That does not mean that "low" cannot be determined with precision in a real-world device; it means that the patentee did not intend to constrain "low" to a specific value for all applications.

Defendants nevertheless attempt to limit the definition of "low resolution sampling" to sampling at a resolution "less than or equal to 4 bits." Although they rely on a long treatise from their expert about how resolution is employed in the art, their actual support for this proposition from the specification is a single embodiment of the '134 patent at 11:32–33 ("In one embodiment, the low resolution 4 bit samples from the Flash A/D converter are narrow band filtered. . . ."). Of course, by its very terms, this is simply one embodiment. The patentee never expressed an intention here to define all low resolution sampling as involving 4 bits. Indeed, elsewhere in the specification, certain 4 bit samples are instead described as "medium resolution." *See, e.g.*, *id*. at 2:9–14 ("The flash A/D cell 320 uses a flash A/D module to sample the receive band to a medium resolution (approximately 4 bits) at a high enough rate to avoid aliasing.").

At his deposition, Defendants' expert was unable to present a cogent explanation (apart from *ipse dixit*) of how the patent can describe 4 bits as "medium resolution" consistent with his assertion that "low resolution" means 4 bits or less. *See* Ex. 4 (Mahon Dep. Tr.), at 201:14–202:8 ("Q. So is 4 bits a low resolution or a medium resolution based on your construction? A. My

construction is that low resolution is 4 bits or less. That does not prevent someone from construing the term "medium resolution" as disclosed in the patent to be approximately 4 bits. Q. Why not? A. There's no other evidence to support that. Q. I don't understand. You said it does not prevent someone. What do you mean there's no other evidence to support that? A. So the inventor uses to amplify the medium resolution and it's approximately 4 bits. So a person of ordinary skill in the art would understand that could be 5 bits; it could be 4 bits. And reading the patent specification, throughout the patent the inventor is very consistent in saying that low resolution is 4 bits or less. So those two things can exist in the affirmative at the same time."). Defendants' efforts to import one embodiment—contradicted by another embodiment—into the claim should be rejected. *See Hill-Rom Svcs., Inc. v. Stryker Corp*., 755 F.3d 1367, 1371-72 (Fed. Cir. 2014) ("[W]e do not read limitations from the embodiments in the specification into the claims.").

9. "a transmitter and the receiver being co-located with each other" / "a receiver co-located with a transmitter" / "co-located receiver" ('775 patent, claims 1, 4, 15–17, 21, 24, 35–37)

Finesse's Construction	Defendants' Construction
Plain and ordinary meaning. Alternatively, to the extent that the Court believes these terms require construction: "co-located receiver" – the definition in the specification applies, and the phrase means "a receiver located in the vicinity of the self communications terminal, but not associated with the self terminal," where "self communications terminal" and "self terminal" mean "the receiver and transmitter of the target system (central system to discussion)" "transmitter and the receiver being co-located with each other" / "receiver co-located with [a/the] transmitter" – in these instances, "co-located" means "in the vicinity [of]"	a receiver located in the vicinity of, but not associated with, the transmitter

The parties dispute whether the term "co-located" should be accorded the meaning and definition the patentee, acting as its own lexicographer, has given it in the specification, or if it

should be further narrowed to place additional limitations on the affected claim terms. Defendants' proposed construction finds no support in the specification and unnecessarily narrows the definition provided in the '775 patent.

The term "co-located receiver" appears in claims 15, 24, 35, 36, and 37 of the '775 patent, as well as the "Definitions" section of the patent, which defines the exact term to mean "[a] receiver located in the vicinity of the self communications terminal, but not associated with the self terminal." '775 patent, 6:7–9. The patentee has further defined "self communications terminal" to refer to "the receiver and transmitter of the target system (central system to discussion) (also referred to as the self terminal)." *Id.* at 5:65–67. Where a patentee acts as its own lexicographer and "clearly set[s] forth a definition of the disputed claim term" in the specification, that definition is "relevant and controlling." *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002); *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 862 (Fed. Cir. 2004). The Court should apply this "controlling" definition to "co-located receiver" and stop there.

The phrases "receiver co-located with [a/the] transmitter" and "a transmitter and the receiver being co-located with each other" appear in claims 1, 4, 16, 17, 21, and 24 of the '775 patent and define the co-location of a receiver or a transmitter relative to each other. Finesse submits that the '775 patent's "Definition" section makes clear that "co-located" should be construed to mean "in the vicinity of." *See* '775 patent, 6:7–12 ("Co-located receiver: A receiver located in the vicinity of. . . . Co-located transmitter: A transmitter located in the vicinity of. . . .").

However, Defendants have asserted that the appropriate definition for these "co-location" phrases should be "a receiver located in the vicinity of, ***but not associated with***, the transmitter." Defendants' proposed construction appears to take the definition for "co-located receiver" in the specification, but replaces the term "self terminal" with "transmitter." There is no basis for this

substitution, because the '775 patent explicitly recites that the "self terminal" is more than just a transmitter, and includes, for example, both a receiver and a transmitter. *See id.* at 5:65-67 ("Self communications terminal: The receiver and transmitter of the target system (central system to discussion[.]).)" Defendants' proposed construction thus unnecessarily narrows the definition provided in the '775 patent and must be rejected.

The use of "co-location" to mean "in the vicinity of" is also consistent with extrinsic evidence. For example, Defendants have published press releases using the word "co-located" in context to mean "in the vicinity of." *See, e.g.,* Wells Decl., ¶151, Dkt. 79-1 at 13–15 & sources cited therein. As such, the Court should adopt Finesse's proposed construction for these phrases, or find that they should be accorded their plain and ordinary meaning.

10. "convolving a composite transmitter signal set with a compression curve function" ('775 patent, claims 10, 18, 30, 38)

Finesse's Construction	Defendants' Construction
Plain and ordinary meaning. Alternatively, to the extent that the Court believes these terms require construction: "combining signals to create a new signal from the composite transmitter signal set using a compression curve function"	Indefinite

Defendants assert that this phrase is indefinite under 35 U.S.C. § 112 because the term "compression curve function" does not refer to a specific function. Defendants' position is untenable given the patent claims and specification, and in any event Defendants cannot meet the high burden of proving indefiniteness by clear and convincing evidence.

As Dr. Wells attested to in his declaration, a skilled artisan would readily understand the term "compression curve function" as used in the '775 patent to be "a power series description of a non-linear process," known in the art, and therefore should be accorded its plain and ordinary

meaning. Wells Decl. ¶¶160–61. Defendants' expert, Dr. Mahon, appears to be in agreement: "[A] person of skill in the art may understand the concept of a 'compression curve,' as being related to the non-linear characteristics associated with a device[.]" Ex. 5 (Mahon Decl.) ¶87. In support, the Abstract of the '775 patent makes clear that a power series function is envisioned as the compression curve function, when it described the invention as, *inter alia*, "a method comprising generating continuous and real time IMP cancellation signals (ICS) in the baseband digital signal set . . . including digitally generating the IMP cancellation signals ***using a process based on a power series description of a non-linear process*** generating the IMPs, generating 3rd order IMP cancellation signals by digitally multiplying two or three signals of the transmitter signal set to create 3rd order IMP cancellation signals. . . ." (emphasis added).

The compression curve function is described throughout the patent as a power series description of the nonlinear process, and the affected claim language specifically teaches how the function is performed. For example, claim 15 of the '775 patent requires that "the passive IMPs are cancelled in the co-located receiver by a digital process ***based on a power series description of the nonlinear process*** in a transmitter hardware chain and is done with one or more ICSs in the receiver, and wherein the nonlinear power expansion is represented by a standard nonlinear amplitude control function or a compression curve." *Id.* at 18:27–33 (emphasis added). Furthermore, in each of the claims where "convolution" using a "compression curve function" is recited, the claim cites back to a prior claim that mentions using a power series description of a non-linear process to generate the cancellation signals, further spelling out the signal generation process:

- Claim 10 refers to claim 4, which states: "generating, with a priori knowledge of a transmitter signal set, continuous and real time IMP cancellation signals (ICSs) . . .

wherein generating the ICSs ***is based on a power series description of a non-linear process*** for generating the IMPs, and includes generating a 3rd order ICS by, given three signals S1, S2 and S3, digitally multiplying and filtering S1×S1×S2 and S1×S2×S2 and S1×S2×S3 and S1×S1×S3 and S2×S2×S3 and S1×S3×S3 and S2×S3×S3." '775 patent, 18:4–8, 17:17–38 (emphasis added).

- Claim 18 refers to claim 17, which states: "creating one or more composite passive intermodulation product (IMP) cancellation signals (ICSs) . . . wherein generating the ICSs ***is based on a power series description of a non-linear process*** for generating the IMPs, and includes generating an n-th order ICS by, given three signals S1, S2 and S3, digitally multiplying and filtering S1×S1×S2 and S1×S2×S2 and S1×S2×S3 and S1×S1×S3 and S2×S2×S3 and S1×S3×S3 and S2×S3×S3, where n is an integer." *Id.* at 18:53–19:8 (emphasis added).
- Claim 30 refers to claim 24, which describes apparatus comprising "circuitry to cancel passive intermodulation products (IMPs) in the co-located receiver, the circuitry configured to: generate, with a priori knowledge of a transmitter signal set, continuous and real time IMP cancellation signals (ICSs) . . . wherein the circuitry is further configured to generate the ICSs ***based on a power series description of a non-linear process*** for generating the IMPs, and the circuitry is operable to generate a 3rd order ICS by, given three signals S1, S2 and S3, digitally multiplying and filtering S1×S1×S2 and S1×S2×S2 and S1×S2×S3 and S1×S1×S3 and S2×S2×S3 and S1×S3×S3 and S2×S3×S3." *Id.* at 20:46–52, 19:50–20:9 (emphasis added).
- Claim 38 refers to claim 37, which describes apparatus comprising "circuitry configured to[] create one or more composite passive intermodulation product (IMP)

> cancellation signals (ICSs) . . . wherein the ICSs are generated ***based on a power series description of a non-linear process*** for generating the IMPs, and a 3rd order ICS is generated by, given three signals S1, S2 and S3, digitally multiplying and filtering S1×S1×S2 and S1×S2×S2 and S1×S2×S3 and S1×S1×S3 and S2×S2×S3 and S1×S3×S3 and S2×S3×S3." *Id.* at 21:33–22:22 (emphasis added).

See also Wells Decl. ¶164.

Furthermore, extrinsic evidence confirms that the term "compression curve function" is a well-understood industry term of art and serves as a standard model for the nonlinearity of an amplifier. *See id.* at ¶165; Dkt. 79-1 at 15–23. The claim phrase at issue is not indefinite because a skilled artisan would not only be able to identify, with reasonable certainty, what is being convolved (a transmitter signal set), but also is able to gather what is performing the convolution (a compression curve function) and how the function works (by digitally multiplying and filtering signals). The specification at 15:37–43 reflects this in describing one embodiment of the invention in which "the ***combined digital signal set*** from 6023 is up sampled and cubed ***to create all possible 3rd order IMPs*** in 6024 and the result is filtered to pass only those IMPs within the transmitter passband and ***this is a composite ICS signal*** for all the active transmitter IMPs" (emphasis added). Similarly, claims 10, 18, 30, and 38 each references convolving a plurality of signals (*i.e.*, a signal set) by using a compression curve (claims 10 and 38), a standard nonlinear compression curve (claim 18), or a compression curve function (claim 30). *Id.* at 18:27–33, 19:5–8, 20:46–52, 22:17–22. These disclosures are sufficient to inform a skilled artisan about the scope of these claims with reasonable certainty. *Energizer Holdings, Inc. v. ITC*, 435 F.3d 1366 (Fed. Cir. 2006).

Defendants also make the half-hearted argument that "convolving" or "convolution" is ambiguous and cannot mean combining signals to create a new signal. However, their expert

conceded that "a person of ordinary skill in the art would understand that 'convolving' two signals together is equivalent to filtering one signal with another through a mathematical process," and as such is a concept well-understood by skilled artisans. Mahon Decl. ¶81; *see also* Mahon Dep. Tr. at 88:11–18 (Answer: "So it's a generally understood principle in electrical engineering that multiplication in the time domain is equivalent to a convolution in the frequency domain[.]"). Furthermore, the claim language itself defines what "convolving" means—*i.e.*, applying a compression curve function. *See, e.g.*, '775 patent at 18:4–8; *Chef Am., Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371, 1372–73 (Fed. Cir. 2004) (declining to construe term where the "claim means what it says"). Accordingly, because Defendants' expert concedes the terms "convolving" and "compression curve function" have well-understood meanings and such are readily ascertainable from the claim language itself, the Court should accord the phrase "convolving a composite transmitter signal set with a compression curve function" its plain and ordinary meaning.

V. CONCLUSION

For the foregoing reasons, the Court should adopt Finesse's proposed constructions.

Dated: May 26, 2022

Respectfully submitted,

By: */s/ Joseph S. Grinstein*

Joseph S. Grinstein – Lead Counsel
Texas State Bar No. 24002188
jgrinstein@susmangodfrey.com
Shawn Blackburn
Texas State Bar No. 24089989
sblackburn@susmangodfrey.com
Meng Xi
California State Bar No. 280099
mxi@susmangodfrey.com
Megan E. Griffith
New York State Bar No. 5544309
mgriffith@susmangodfrey.com
Bryce T. Barcelo
Texas State Bar No. 24092081
bbarcelo@susmangodfrey.com
SUSMAN GODFREY L.L.P.

1000 Louisiana Street, Suite 5100
Houston, TX 77002
Telephone: (713) 651-9366
Facsimile: (713) 654-6666

S. Calvin Capshaw
Texas State Bar No. 03783900
ccapshaw@capshawlaw.com
Elizabeth L. DeRieux
Texas State Bar No. 05770585
ederieux@capshawlaw.com
CAPSHAW DERIEUX LLP
114 E. Commerce Ave.
Gladewater, TX 75647
Telephone (903) 845-5770

T. John Ward, Jr.
Texas State Bar No. 00794818
jw@wsfirm.com
Andrea Fair
Texas State Bar No. 24078488
andrea@wsfirm.com
Chad Everingham
Texas State Bar No. 00787447
ce@wsfirm.com
WARD, SMITH & HILL, PLLC
PO Box 1231
Longview, Texas 75606
Telephone: (903) 757-6400
Facsimile: (903) 757-2323

ATTORNEYS FOR PLAINTIFF
FINESSE WIRELESS, LLC

CERTIFICATE OF SERVICE

I hereby certify that counsel of record are being served this 26th day of May, 2022, with a copy of this document via CM/ECF.

/s/ Joseph S. Grinstein
Joseph S. Grinstein